Employment of Artificial Intelligence Technologies in Iraqi Television Channels & Their Impact on Developing the Communicator's Digital Media Skills

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Abstract

This study aims to identify the possibility of employing artificial intelligence (AI) technologies in Iraqi television channels and the impact of these technologies on developing the digital media skills of the communicator. The study community consists of the 57 Iraqi television channels, while the sample consists of 400 respondents who are communication professionals and specialists at these channels. This is a descriptive analytical study, employing the descriptive method to describe concepts related to artificial intelligence technologies and digital media skills. In addition, the analysis was made using the Statistical Package for Social Sciences (SPSS). The study has found that the level of relative importance of employing artificial intelligence technologies (expert systems, neural networks) in Iraqi television channels is high, and the level of available digital media skills among communicators is also high. It also found that employing artificial intelligence technologies in Iraqi television channels has an impact on developing the digital media skills of communicators. The study recommends increasing focus on artificial intelligence technologies due to their scientific importance in developing the digital media skills of communicators, by restructuring them into computer-hosted programs.

Keywords: artificial intelligence technologies, Iraqi television channels, digital media skills, communicator.

Introduction

Artificial intelligence technologies are regarded as one of the latest human innovations that could have applications across all sectors on a global scale. These technologies are based on studying how computers can direct humans to perform tasks more efficiently by using general-purpose applications such as perception and logical interpretation, or by leveraging applications to carry out special-purpose tasks, such as chess, medical diagnosis of diseases, etc. (Al-Sharaia & Fares, 2015).

Nowadays, artificial intelligence (AI) represents an important mystery, as it can help explain how the small human brain, whether biological or electronic, understands, perceives, predicts, and interacts with the world, which is larger and more complex than the brain itself. By simulating the intelligence processes that occur within the human brain, the computer becomes able to solve problems and make decisions in a logical manner and in the same style and method of thinking as the human brain (Orabi, 2023).

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Growing developments related to the Internet have contributed to the emergence of digital media, as defined by specialized media professionals and communicators. Thus, the use of information technology has greatly affected the media landscape, resulting in the compulsory use of information technology in the media sector and the emergence of digital transformation concepts that regulate how the media deals with target audiences.

Consequently, media institutions are showing an increasing interest in digital transformations related to media content, in order to automate their operations and raise their capabilities in addressing the public, with the aim of meeting the information needs of this public, especially since the information and communications revolution has enabled the receiving public to access information through other means. As such, media institutions have witnessed major changes in their operations as a consequence of the communications and information technology revolution, resulting in the extensive use of digital media skills in creating and reformatting media content.

Digital media skills are an advanced phase of proficiency in media tasks and responsibilities. They are based on efficient and effective performance in line with leading media concepts, which mainly focus on improving the professional performance of communicators, developing strategic and media partnerships, and building successful media academies.

It becomes therefore evident that artificial intelligence and digital media technologies, with their new specifications, are now contributing to outlining the features and visions for a new model that covers the various elements of the digital communication process, including the required channels, media, messages and tactics. They have also brought about a change in the role AI plays in developing the digital media skills of communicators to make communications more positive and effective. The researcher assumes that this role will gradually turn into software and digital transactions enabled by modern communication technologies.

Issue

Despite the technological developments that have impacted media and communication work in Iraqi television channels, there are still shortcomings in employing AI applications such as expert systems and neural networks. The absence of sufficient know-how and experience in using AI applications in Iraqi television channels makes the use of these technologies in media tasks arduous and complex. This issue motivated the researcher to delve deeper into this area and study the possibility of employing AI technologies in Iraqi television channels and revealing their impact on the digital media skills of communicators. As such, the study aims to answer the following questions:

Question 1: To what extent are AI technologies employed in Iraqi television channels from the point of view of communication professionals and specialists?

Question 2: To what extent are digital media skills available among communication professionals and specialists in Iraqi television channels?

Question 3: How does the employment of AI technologies in Iraqi television channels impact the digital media skills of communication professionals and specialists?

Importance

The importance of the study lies in the fact that it examines the modern method of artificial intelligence technologies, which constitute an important element in the work of Iraqi television channels. The study takes on additional importance based on two aspects:

1. Theoretical Importance: This study offers the possibility of providing a modest contribution by tracking theoretical literature and previous studies on the main variables within the conceptual framework. The results it offers may benefit Iraqi television channels and the research community, by helping them leverage and employ AI technologies to develop the digital media skills of communicators.

2. Practical Importance: This study offers potential contributions to decision makers in Iraqi television channels, who can utilize its findings to better understand the importance of improving digital media skills. It also highlights the importance of employing AI technologies in this field in a way that does not conflict with the nature of work of these channels.

Objectives

This study aims to identify the possibility of employing AI technologies in Iraqi television channels, and their impact on developing the digital media skills of communicators. It is also intended to identify the level of relative importance of employing AI applications and digital media skills from the perspective of the communicator.

Study Hypotheses

The study tests the following main hypothesis: There is no statistically significant impact of employing artificial intelligence technologies (expert systems, neural networks) in Iraqi television channels on developing digital media skills among communication professionals and specialists. The following hypotheses branch out from the mentioned main hypothesis:

Hypothesis 1: There is no statistically significant impact of employing expert systems in Iraqi television channels on developing digital media skills among communication professionals and specialists.

Hypothesis 2: There is no statistically significant impact of employing neural networks in Iraqi television channels on developing digital media skills among communication professionals and specialists.

Definitions

Artificial Intelligence: A modern computer science application that focuses on automating the behavior of communicators in Iraqi satellite channels, by designing advanced methods and techniques that program smart computer systems able to display intelligent features from the behavior of the communicator, helping to deduce the facts and rules represented in the computer memory. For the purposes of this study, artificial intelligence is measured using the following variables:

1. Expert Systems: Smart computer systems that use information, knowledge, facts, and inferential procedures to solve specific problems facing communicators in Iraqi satellite channels, by dealing with previously provided information or simulating and deducing experiences and supporting the communicator's experience in solving and addressing problems.

2. Neural Networks: A large processor system with a parallel distribution designed to mimic the method used by communicators in Iraqi satellite channels to perform specific media tasks. This system consists of several simple processing units that together form the computational elements called nodes or neurons. They are characterized by neural properties that play their role in storing experimental information and knowledge.

Digital Media Skills: A set of capabilities that allow communicators in Iraqi satellite channels to use electronic tools on the Internet, such as websites, social media, mobile applications, media available through the Internet and e-mail.

Communicator: Communication professionals and specialists and communicators in Iraqi satellite channels who participate in producing the content and media messages displayed by the channel.

Study Limits

The study limits are as follows:

1. Spatial Limits: The spatial limits consist of the 57 Iraqi television channels.

2. Human Limits: The communication professionals and specialists in Iraqi television channels.

3. Temporal Limits: This study was completed during the period spanning from November 2023 to the end of January 2024.

Study Theory

The researcher relied on the cultivation theory, which explains how communication professionals and specialists can use digital media skills to influence the audience and tackle the issues, directions and ideas they want as communicators to enhance their digital skills. The cultivation theory constitutes an applied depiction of ideas related to the processes of constructing meaning, shaping social facts, and learning through observation and the role played by digital media in these fields. The cultivation theory confirms the general idea around which media theories revolve, which is the media's ability to influence individuals' knowledge and skills and their perception about the worlds surrounding them, especially individuals who are extensively exposed to this media. Therefore, this theory explores links between the intensity of acquiring meaning, ideas, beliefs, and symbolic images about the world through digital media and away from the real world (Ismail, 2013).

Methodology

This is a descriptive analytical study that uses the descriptive method to describe concepts related to AI technologies and digital media skills. It is a field study because the information was collected through a questionnaire and from the study sample composed of communication professionals and specialists in Iraqi television channels.

Study Community & Sample

The study community consists of the 57 Iraqi television channels, according to the website (https://ar.wikipedia.org/wiki/). The sample is a simple random sample consisting of 400 respondents from communication professionals and specialists in Iraqi television channels.

Data Collection Tool, Validity & Consistency

The study relied on a questionnaire that was presented to several university professors to ensure its face validity. The questionnaire consistency was measured using Cronbach's Alpha internal consistency coefficient, according to which the questionnaire consistency is 91.9%, which is a high reliability percentage.

Data Collection Sources

The researcher relied on two types of information sources: secondary sources, such as management and media books, scientific materials, publications, and specialized journals that investigate AI technologies and digital media skills; and primary sources, consisting of the questionnaire.

Statistical Methods Used in the Study

The researcher used statistical methods of the Statistical Package for Social Sciences (SPSS) in analyzing the data, where arithmetic means, and standard deviation were used. Moreover, a multiple and simple linear regression analysis was used to test hypotheses.

Literature

Orabi's study (2023) aimed at identifying the important role of artificial intelligence in influencing purchasing decisions. The study concluded that there was a direct relationship between the use of AI and purchasing decision-making. It was found that the most prominent AI applications used by the sample during online shopping were intelligent quantitative visual search, followed by intelligent voice search, chatbots, proposed product list technology, and technology enabling the testing of products before purchase.

Bouzyan' s study (2023) aimed at revealing the importance of using artificial intelligence in marketing. It sought to highlight the importance of using AI in marketing and presented a group of international brands that applied AI in their marketing activities. The study found that AI revolutionized marketing, as businesses have started to use this sophisticated technology to provide the highest level of customer care and achieve optimal customer satisfaction rates. Moreover, Al-Bimbawi's study (2023) tried to understand the importance and role of artificial intelligence and big data applications in raising the efficiency of digital marketing methods within the framework of technological acceptance. The study concluded that AI applications have helped in the great developments that digital marketing is witnessing nowadays, and that digital marketers rely heavily on them in their marketing campaigns, as these technologies facilitate marketing tasks, save time and effort, and achieve more accurate results. In the meantime, Al-Shammari's study (2023) addressed the impact of artificial intelligence technologies on corporate governance in the Saudi ecosystem. The study reached the conclusion that it was necessary to activate AI technologies in governance, focus on digital transformation, and consider the possibility of activating the principle of electronic disclosure and transparency. According to the study, AI technologies help reduce time, effort, and costs, and accelerate disclosure and transparency, as well as enable stakeholders to access corporate data and records.

In the same vein, Al-Huwaiti (2022) examined the extent to which faculty members in public and private Jordanian universities accept artificial intelligence applications in light of the Unified Theory of Acceptance and Use of Technology (UTAUT). The study concluded that the relative importance of AI applications was high, and that the relative importance of the themes of the Theory of Acceptance and Use of Technology (UTAUT) was also high. Metwally and Farhat (2022) also have investigated the impact and repercussions of artificial intelligence technologies on the media messages of foreign newspaper websites. The study inferred that the employment of AI technologies in the newspapers constituting the study sample, to provide media content, was equal among the four newspapers. This confirms that the newspapers made use of the technologies that accompanied the digital revolution in the media field when presenting their media content in various sections of the newspaper.

In another context, Barnes and Zvarikova (2021) addressed wearable medical devices that support artificial intelligence and Internet of Things-based healthcare applications in the prevention, screening, and treatment of COVID-19. The study suggested that sensing applications can be harnessed for continuous, real-time remote monitoring, and that patient vital signs making up clinical data can be harnessed in a patient- and healthcare-focused mobile deployment. Besides, while analyzing evidence on smart devices, artificial intelligence, and real-time sensor networks as fundamental issues in sustainable cyber-physical production systems, Lazariu et al. study (2021) concluded that smart devices, artificial intelligence, and sensor networks are important in sustainable cyber-physical production systems. In the meantime, Wade & Vochozk's (2021) demonstrated the importance of IoT systems based on AI data, sustainable wireless networks, and digital mass production in the intelligent manufacturing of electronic physics, while Das (2020) asserted that various forms of digital media have an impact on society and play a fundamental and pivotal role in developing content production. He identified some problems related to credibility and the possibility of using this type of media in producing more compelling content, requiring journalists and users to adhere to standards of objectivity and credibility to increase confidence in those media.

In the media field, Abdul Hamid (2020) examined the possibility of employing artificial intelligence applications in producing media content and their relationship to media content credibility among the Egyptian public. The study found that the most important AI applications employed in media are automated chat applications using social media platforms and websites, followed by big data applications, then applications aimed at facial recognition on social media platforms. Also, Saad (2020) addressed the integration of journalism fields in the era of artificial intelligence and robot journalism. The study reached a number of conclusions, most importantly the conclusion that only 15% of press correspondents across the globe use AI in their work, and that only 9% of editors use it in their work. This indicates that many tasks and jobs will be taken over and replaced by robots. The study also found that AI technologies will

not replace humans in the near future, and that humans will remain in control of these technologies and will benefit from them in performing their work more accurately, quickly, and efficiently. Focusing on digital media, Asadi's study (2017) aimed at identifying the role of digital media in discussing diplomacy in the world, as well as the nature and various categories of digital media. The study demonstrated that thanks to its exceptional features and ability to influence public opinion, digital media also has a significant impact on shaping social changes and changing discourses. It was also found that the digital media environment uses and localizes this new type of media due to technical conditions that limit the process of strengthening and developing media using AI technologies.

Study Advantages

By reviewing previous studies that addressed the same subject of this study, it becomes evident that it is important to employ artificial intelligence technologies in Iraqi television channels and that it is necessary to further examine this subject. It is also clear that all the studies revolve around the subject of AI technologies in general and their importance and impact on other research variables. It is also evident that the studies focused on determining the importance of these technologies and standards from the point of view of the surveyed sample, showed a direct interest in the two variables individually, and tried to determine the views of the surveyed sample on these technologies. This study addresses the two variables together, along with AI technologies and digital media skills.

Theoretical Framework

Artificial Intelligence

Artificial intelligence is a modern cognitive science that appeared in the last years of the twentieth century and the beginning of the twenty-first century. It was used to control business, develop medical research, and provide ideal solutions in criminal, security, and other matters. Software solutions have helped scientists and researchers understand the mechanism on which human thinking is based and how it processes, stores and retrieves information as needed, based on the simulation method (Abdul Majeed, 2009).

It was found that there are interconnected program structures consisting of mathematical matrices in the form of artificial neural networks that make the machine perform its work intelligently on behalf of humans. For these networks to do their work, they need to be supervised by humans, who provide examples to the machine for only one time in order to save these examples and retrieve them as needed. These networks also learn without a supervisor by presenting similar models based on which any new model presented to them is distinguished (Al-Bakri and Ismail, 2010).

Artificial intelligence is a science based on the development of modern systems through which millions of pieces of information are stored in a computer to form a main database, in the same way and fashion that information is stored in the human mind based on knowledge and experiences gained on a daily basis. After that, special programs are developed and used by the computer to process this information and data logically to solve decision-making problems. Examples of artificial intelligence include robots and personal computers that conduct discussions and dialogues with humans and implement voice commands and other applications (Al-Sayed, 2014).

Husseini (2018) points out that AI science is a way of thinking (algorithms) that empowers the computer to solve problems, using intelligent computer programs and systems developed using a programming language. These are represented in the computer's memory, enabling it to simulate human intelligence. The programmer usually writes and represents the data, and then the language carries out the study processes. The most famous languages include Prolog and Lisp.

The researcher believes that AI is a branch of computer science based on the design of smart systems. These systems can perform tasks carried out by employees at Iraqi television channels, while providing almost the same known intelligence characteristics that shape the behavior of employees. The working

principle of artificial intelligence is based on emulation in formations through which it is possible to describe things, events and processes using their qualitative properties and logical and computational relationships.

For the purposes of this study, artificial intelligence was measured through expert systems and neural networks. Below is an overview of them:

I. Expert Systems: Expert systems are a major contribution of artificial intelligence. They are used to represent and control the study of knowledge within cognitive databases. These systems were created to extract the know-how and knowledge of experts in a specific specialty and integrate them in an expert system that replaces humans, to ultimately help transfer expertise to other people. Expert systems have a great ability to solve problems and are faster than a human expert (Bilal, 2021). Expert systems are the specialized and most advanced computer systems in application software. They rely on knowledge bases in a specific area of expertise, and are used in designing various projects, allocating resources to operations, scheduling customer requests, and monitoring operations. The importance of this type of program lies in its ability to extract human experiences and store them in a program that imitates how experts work at the same level (Al-Hubaydi, 2014).

II. Neural Networks: They are one of the most important applications of artificial intelligence. They represent one of the useful and appropriate tools for solving problems related to pattern recognition and classification. Computer neurons include all aspects capable of completing an embedded electronic model and implementing it practically from a technological standpoint. They do so by storing experimental information and practical knowledge in links, communications and processing units that form computational elements called nodes or neurons, which have a neural property to make the information available to users (Yassin, 2016). Neural networks consist of several nodes that collectively perform special types of computations. Each of these nodes is a small standard computational unit that operates in parallel depending on the presence of some type of interaction between them. Networks are mathematical models that are formulated into simple diagrams or structures of algorithms that mimic the characteristics of computer systems, which process information and provide solutions to complex problems in parallel. These networks are composed of relatively simple elements called neurons (Al-Bakri and Ismail, 2010).

Digital Media

Digital media has several names, including interactive media, multimedia platforms, and live network media. This type of media has gained great attention thanks to the enormous capabilities and development potential it brings to institutions of all types and sizes, regardless of the methods they use to provide their services and satisfy their audiences. Creativity and innovation have taken center stage in the field of digital media technologies, becoming the main driver of various types of institutions to provide high-quality services to the public.

Almaazmi et al. (2020) defines digital media as applications of modern digital technologies integrated with traditional media strategies to achieve the goals of media institutions. Institutions are also adopting this new type of media to gain great momentum in order to facilitate the communication process through advanced applications in smartphones that encourage various media exchange activities.

Digital media is a free, interactive means of communication for sharing news and information, and practicing media and journalism activities without censorship or away from conditions that are often criticized in traditional media. The emergence of digital media announced the birth of a new media that competes with traditional media. Digital media has also allowed people to transmit the data and information they acquire to the public through the available means of digital media. Digital media is a type of privatization, as it is not subject to any rules or censorship, and is now comparable to traditional media, influencing society, its beliefs and directions. In addition, alternative media can take the form of information, opinion, news, or incitement sent to many people in society through any of the modern means of technology enabled by the Internet and mobile phones. (Al-Qusayri, 2011).

Digital media is a form of media that uses electronic devices in programs, websites, video clips, media, social media platforms (such as Facebook, Twitter, YouTube), blogs and forums. The digital media concept puts emphasis on its audience, who has become a fundamental source of information and an alternative to traditional media. Moreover, digital media brings new ideas and methods of cooperation, planning and arrangement among members of society (Al-Rifa'i, 2017).

Digital media also includes media activities that are done in a digital and interactive way. Digitization is based on the combination of video, text, audio and image, in addition to the use of the computer as a main device in the display process. As for interactivity, it is one of the most important characteristics of digital media that distinguishes it from other types of media (Sadiq, 2021).

Digital media is also defined as the "application of interactive digital technology to achieve the goals of a media organization by identifying and meeting customer needs and expectations. This type of media consists of different technologies, digital channels, and all forms of online media. (Onobrakpeya & Mac-Attama, 2017).

Moreover, digital media is defined as an "untraditional virtual platform that relies primarily on the Internet to enhance services, connect customers, and identify and understand user needs using digital technologies and devices. It is also a modern and very effective method used to raise awareness about services and develop and improve the organization's image." (Mishra, 2020).

The researcher believes that digital media is a modern media method used by communication professionals and specialists in Iraqi television channels. This type of media is based on the use of electronic devices for transmitting and transferring data in the form of binary signals. These devices include digital cables, satellites, mobile devices and computers. Digital media is widely used in programs and multimedia such as images, audios, videos, websites, and online advertisements.

Digital Media Skills

At first glance, it would seem that knowledge and skill are two synonyms. Knowledge means learning concepts, principles, and information related to a specific field or topic by consulting various sources such as books, studies, educational institutions, etc. As for skill, it is the ability to use and apply these concepts, principles, and information in the relevant field. Knowledge refers to theoretical aspects, while skill refers to applying that theory to successfully achieve the desired outcomes. Thus, educational institutions are constantly trying to find the best means and methods to provide an educational environment that attracts the attention of learners, and follow regular and cohesive steps that can help achieve integration between the theoretical and applied aspects of learning. They further provide learners with the opportunity to acquire and integrate knowledge and skills through developing curricula linked to the local environment and community needs (Harvey, 2003).

This is why it is important for learners to master the basic knowledge that they learn in the educational institution. This plays an important role in facilitating communication between the teacher and the learner to help in acquiring concepts, principles, and information and applying the skills related to that knowledge. The failure to master these skills prevents interactions between the teacher and the learner, and thus access to the knowledge required for the teaching process. The accumulated information that learners acquire plays an important role in providing them with the necessary knowledge and skills and organizing them through the various curricula. Consequently, organizations are interested in practical educational outcomes and the development of skills among learners (Nabhan, 2018). Skills can be acquired and developed on the basis that they represent a set of knowledge, abilities and experiences that the learners must have to be able to accomplish the tasks and duties assigned to them. Skills development consists of obtaining the appropriate knowledge and information about a specific topic, and includes several types, namely intellectual, technical and communication skills (Al-Sayed, 2015). Below is an explanation of these types:

1. Intellectual Skills: A mental process intentionally practiced and used by individuals to process information and data for the purpose of achieving various goals. It ranges from remembering information,

describing things, taking notes, to predicting things, classifying things, then evaluating evidence and solving problems to reach conclusions. Intellectual skills relate to the vision of the institution as a whole and its relationship with the external environment. They are used to determine relative priorities between multiple and contradictory goals and measures (Robbins & Judge, 2015). Intellectual skills represent the ability to think abstractly and analyze critically to solve the most complex problems. Thus, a successful leader is one who views situations from all aspects, in a more comprehensive manner, and has the ability to solve problems for the benefit of everyone. In other words, a successful leader is an expert in finding appropriate solutions and has the ability to think critically, as they can influence the organization's work through the integration of its various components (Madi, 2016).

2. Technical Skills: These skills are acquired through knowledge, experience, and learning through practice. They are developed by working within the organizational unit and completing the required tasks and duties. Many people have several of these skills, as modern management requires leaders, individuals, and administrative staff to have capabilities that allow them to complete the work efficiently (Robbins & Judge, 2015). Technical skills help all parties excel because they are based on specialized knowledge and the ability to work and analyze all aspects related to business activities, especially if the activities are related to required work methods and processes. They are also represented by the ability to use tools, means and procedures that help perform tasks and duties successfully (Al-Shammari, Al-Barzanji and Al-Hayani, 2017).

3. Communication Skills: They are a reflection of the learner's ability to send and receive messages from others in order to communicate information in a way that helps exchange information (Hussein, 2018). Communication skills are acquired through the learner's understanding of the essential factors around them, and how to deal with the group and the individual. They can be developed through special courses. However, most educated individuals who possess this skill have developed it themselves, as it involves the process of exchanging ideas, facts, opinions, and perspectives among individuals. This is done by using a formula of expression so that each party can understand the other, in order to exchange experiences or directions between two or more parties using verbal or non-verbal messages. This leads to creating a relationship, interaction and understanding among all parties (Robbins & Judge, 2015).

The researcher believes that digital media skills include a series of information that is linked to the ability of communication professionals and specialists in Iraqi television channels to explore experiences and apply knowledge, and to how they deal with various media situations. They also include planning and decision-making processes, directing mental processes, searching for evidence, and other cognitive strategies related to improving media performance and implementing relevant tasks.

Data Analysis & Hypothesis Testing

I. Results of Descriptive Statistics

Arithmetic means and standard deviations of the study variables were extracted. The following tables show the findings reached from the point of view of the study sample:

Table 1: Arithmetic Means & Standard Deviations of Expert System Technology

#	Statements	Arithmetic Mean	Standard Deviation	Degree of Importance	Rank
1	Iraqi television channels use application software based on knowledge bases in a particular area of expertise	3.776	.7299	High	4
2	Iraqi television channels use expert systems by restructuring them into computer programs	3.564	.6804	Medium	8

#	Statements	Arithmetic Mean	Standard Deviation	Degree of Importance	Rank
3	Iraqi television channels use expert systems to extract knowledge to solve problems facing the communicator	3.905	.6835	High	2
4	Iraqi television channels use advanced programming languages to improve the digital media skills of the communicator	3.670	.8221	Medium	7
5	Expert systems are used because they can provide advice and the right decisions to the communicator	3.917	.6212	High	1
6	Databases are used to represent knowledge and improve the communicator's digital media skills	3.694	.6730	High	6
7	The expert system is used as part of a hierarchical framework that reflects the set of knowledge related to the communicator's digital media skills	3.858	.6006	High	3
8	The expert system is used in Iraqi television channels to be encrypted in a software and stored in the system's knowledge base	3.752	.7385	High	5
Expert System Technology		3.767	High		

Table 1 indicates that the arithmetic means of expert system technology are high at 3.767, with the arithmetic means ranging from 3.564 to 3.917. The paragraph stating "Expert systems are used because they can provide advice and the right decisions" has an arithmetic mean of 3.917, while the paragraph stipulating "Iraq television channels use expert systems by restructuring them into computer programs" ranks last with an arithmetic mean of 3.564. Standard deviations of the statements in this variable indicate the extent to which the values of this variable deviate from the arithmetic mean of all paragraphs. It is noted that they are low, indicating that the answers of the study sample are significantly converged and similar.

Table 2: Arithmetic Means & Deviations of Neural Network Technology

#	Statements	Arithmetic Mean	Standard Deviation	Degree of Importance	Rank
9	Iraqi television channels use neural network technology to complete work in an integrated electronic way and implement them in a practical manner	3.835	.6874	High	3
10	Iraqi television channels use neural networks to store information in links and	3.729	.6967	High	4

#	Statements	Arithmetic Mean	Standard Deviation	Degree of Importance	Rank
	communications				
11	Iraqi television channels have electronic processing units in the form of neurons that make the information available to the communicator	3.588	.8351	Medium	7
12	Iraqi television channels use neural networks in mathematical models structured into graphs to mimic the characteristics of computer systems	3.564	.6804	Medium	8
13	Iraqi television channels use neural networks to process information and provide solutions to complex problems in parallel	3.905	.6835	High	2
14	Neural networks provide solutions and recommendations to the communicator in a clear and adequate form	3.670	.8221	Medium	6
15	Neural networks allow the communicator to enter instructions to get information	3.917	.6212	High	1
16	Neural networks enable the communicator to explain the steps of gathering information to reach the solution	3.705	.6870	High	5
Neural Network Technology		**3.739**	**High**		

Table 2 indicates that the arithmetic means of neural network technology are at a high level of 3.739, with the arithmetic means ranging from 3.564 to 3.917. The paragraph stating "Neural networks allow users to enter instructions to get information" has an arithmetic mean of 3.917, while the paragraph stipulating "Iraqi television channels use neural networks within mathematical models structured into graphs that mimic the characteristics of computer systems" ranks last with an arithmetic mean of 3.564. Standard deviations of the statements in this variable indicate the extent to which the values of this variable deviate from the arithmetic mean of all paragraphs. It is noted that they are low, indicating that the answers of the study sample are significantly converged and similar.

3. Arithmetic Means & Standard Deviations of Dependent Variable: Digital Media Skills

Table 3: Arithmetic Means & Standard Deviations of Dependent Variable: Digital Media Skills

#	Statements	Arithmetic Mean	Standard Deviation	Degree of Importance	Rank
17	Artificial intelligence technologies contribute to the development of	4.000	.7303	High	2

#	Statements	Arithmetic Mean	Standard Deviation	Degree of Importance	Rank
	the communicator's scientific and applied knowledge to carry out their media duties				
18	Artificial intelligence technologies help develop the communicator's ability to negotiate and consult with others	3.960	.6416	High	3
19	Artificial intelligence technologies enhance the communicator's ability to analyze information and derive new media ideas	4.022	.7831	High	1
20	Artificial intelligence improves the communicator's ability to get information related to media updates	3.631	.8301	Medium	7
21	Artificial intelligence enhances the communicator's ability to use the computer to carry out their tasks	3.565	.8380	Medium	8
22	The use of artificial intelligence technologies develops the communicator's ability to access modern technology easily	3.552	.8229	Medium	9
23	Artificial intelligence technologies help develop the communicator's knowledge to solve media problems	3.684	.7157	High	6
24	The use of artificial intelligence technologies improves the communicator's ability to receive and implement directions accurately	3.855	.7607	High	5
25	The use of artificial intelligence technologies increases the capabilities of communicators to share information with one another	3.552	.8229	Medium	4
Dependent Variable: Digital Media Skills		**3.790**	**High**		

Table 3 indicates that the arithmetic means of the dependent variable (digital media skills) are at a high level of 3.790, with the arithmetic means ranging from 3.552 to 4.022. Paragraph (19) stating "Artificial

intelligence technologies enhance the communicator's ability to analyze information and derive new media ideas" has the highest arithmetic mean at 4.022, and its relative importance is (high). The findings also indicate that statement (22), which states "The use of artificial intelligence techniques develops the communicator's ability to access modern technology easily", has the lowest arithmetic mean at 3.552, and its relative importance is medium. Standard deviations of the statements in the dependent variable, which indicate the extent to which the values of these variables deviate from the arithmetic mean, are observed to be low, indicating that the answers of the study sample are significantly converged and similar.

Second: Hypothesis Testing

The study hypothesis states: "There is no statistically significant impact of employing artificial intelligence technologies (expert systems, neural networks) in Iraqi television channels on the digital media skills of communication professionals and specialists." To test the hypothesis, multiple and simple linear regression analysis was used to determine this impact. Table 4 shows the findings reached:

Table 4: Findings of the Multiple and Simple Linear Regression Test of the Impact of Artificial Intelligence (Expert Systems, Neural Networks) in Iraqi Television Channels on the Digital Media Skills of Communication Professionals and Specialists

Correlation Coefficient (R) = .515, Coefficient of Determination (R2)= .265, Adjusted Coefficient of Determination (Adj R2)= .177					
Analysis of Variance (ANOVA)					
Model	**Sum of Squares**	**Degrees of Freedom**	**Mean Square**	**Computed F-Value**	**Significance (Sig)**
Regression	9.554	2	4.777	4.119	0.000*
Residual Value	26.504	397	.066		
Total	36.058	399			
Coefficient Analysis					
Model	**Standard Error**	**Standard Coefficients (Beta)**	**Computed T-Value**	**Significance (Sig)**	
Fixed Limit (.789)		4.832	6.121	.000	
Expert Systems	.305	.697	.9733	.000	
Neural Networks	.365	.505	3.942	.000	

* Statistically significant at significance level (α≤ 0.05).

It is clear from Table 4 that the use of artificial intelligence technologies (expert systems, neural networks) as combined independent variables (R) explains .515% of the differences between communication professionals and specialists in Iraqi television channels in respect to digital media skills, where the value of the adjusted coefficient of determination (Adj. R^2) is .265%. Based on the F-value of the model, which is 4.119, and its significance level (P), which is .000, it becomes clear that the impact of these technologies on digital media skills is statistically significant. It is evident from the values of the standard coefficients (Beta) shown in Table 4 that the expert system technology has the most impact on digital media skills, as the value of its standard coefficient (β) is .697, which is statistically significant, as the significance (Sig) of the T-value is less than the significance level 0.05. It is followed by the neural

network technology, where the value of the standard coefficient (β) is .505, which is statistically significant, as the significance (Sig) of the T-value is less than the significance level 0.05.

Accordingly, the main study hypothesis, which states: "There is no statistically significant impact of employing artificial intelligence technologies (expert systems, neural networks) in Iraqi television channels on the digital media skills of communication professionals and specialists", is rejected and the alternative hypothesis , which states: "There is a statistically significant impact of employing artificial intelligence technologies (expert systems, neural networks) in Iraqi television channels on the digital media skills of communication professionals and specialists", is accepted. As for the hypotheses emerging from it, the first hypothesis is rejected and the alternative hypothesis, which states: "There is a statistically significant impact of employing expert systems in Iraqi television channels on the digital media skills of communication professionals and specialists", is accepted, as the significance (Sig) value of the T-value is less than the significance level 0.05. The second hypothesis is rejected and the alternative hypothesis, which states: "There is a statistically significant impact of employing neural networks in Iraqi television channels on the digital media skills of communication professionals and specialists", is accepted, as the significance (Sig) value of the T-value is less than the significance level 0.05.

Findings

The study sample, consisting of communication professionals and specialists in Iraqi television channels, agree on the importance of employing artificial intelligence technologies (expert systems and neural networks) in Iraqi television channels. Moreover, they agree that the level of availability of digital media skills in Iraqi television channels is high. It has been found that AI technologies enhance the communicator's ability to analyze information and derive new media ideas, and also contribute to developing their scientific and applied knowledge to carry out their media duties. In addition, it was concluded that these technologies help develop the communicator's ability to negotiate and consult with others, and that their use helps enhance the capabilities of communicators to share information with one another and improve their ability to receive and implement directions accurately. The following findings have also emerged:

I. It has been revealed that that there is a statistically significant impact of employing expert systems in Iraqi television channels on the digital media skills of the communicator. It turns out that the arithmetic means of the expert system technology are at a high level, confirming the importance of expert systems because they can provide advice and the right decisions to the communicator. They are also used to extract knowledge to solve problems in the form of a hierarchical framework that expresses the set of knowledge related to the digital media skills of the communicator. In addition, it seems that the use in Iraqi television channels of application software based on knowledge bases in a specific area of expertise possessed by the communicator is important.

II. It is revealed that the use of neural network technology in Iraqi television channels has an impact on the digital media skills of the communicator. It turns out that the arithmetic means of neural network technology are at a high level. Neural networks allow the communicator to enter instructions to get information, as they are used to process information, provide solutions to complex problems in parallel, and get things done in an integrated electronic manner with practical implementation. In addition, it has been shown that Iraqi television channels use neural networks to store information in links and communications, and that these networks enable the communicator to explain the steps of gathering information to reach a solution.

According to the researcher, the findings reached indicate that Iraqi television channels realize the importance of the developments that have impacted their media work and functions, as there has been a great need to provide methods to help these channels provide the communicator with digital media skills. Thus, Iraqi television channels have started using new methods and techniques based primarily on reducing errors and problems and seeking to do the very best to develop the digital media skills of the communicator. Thus, they have used these new and advanced methods to reduce the error rate. These

technologies include artificial intelligence, which is a method that helps achieve high degrees of accuracy and quality in providing media services.

Recommendations

The researcher recommends the following to Iraqi television channels:

1. Focusing more on artificial intelligence technologies because of their scientific importance in developing the digital media skills of the communicator by restructuring them into computer-hosted programs.

2. Emphasizing the necessity of using advanced programming languages, encrypting them in a program, and storing them in the knowledge base of the expert system to develop the digital media skills of the communicator.
3. Emphasizing the importance of using neural networks within mathematical models to develop media services, formulated into graphs that mimic the characteristics of computer systems.
4. Providing electronic processing units in the form of neurons that make information available to the communicator.
5. Focusing on training communication professionals and specialists to keep pace with technological developments in expert systems, and representing knowledge and controlling the study of media services within databases.
6. It is important to rely on the use of smart programs to develop the media service, restructuring them into computer-hosted programs, given their important role in improving the digital media skills of the communicator.
7. Making the most of neural networks, especially to provide solutions about the media service, the reasons behind the solution, and recommendations to the communicator in a clear and comprehensive manner.
8. Focusing more on providing communication professionals and specialists with numerous opportunities to develop and apply artificial intelligence techniques because of their importance in improving their digital media skills.

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